

CLAIMS

0038 What we claim:

1. An input device to continuously detect biometrics for facilitating continuous authentication of the user's identification based on input from sensors attached to the device comprising:

means for providing a base with sensors that indicate different pressures applied to the base by a user;

means for conditioning the analog signal so that it can be converted into a digital signal, electrically connected to said means for providing a base with sensors that indicate different pressures applied to the base by a user;

means for receiving and analyzing data from the sensor electronics for registration and continuous authentication, electrically connected to said means for conditioning the analog signal so that it can be converted into a digital signal;

means for initially linking the user's identity to the user's biometric characteristics, totally embedded to said means for receiving and analyzing data from the sensor electronics for registration and continuous authentication;

means for extracting a set of biometric characteristics from the digitized signal;

means for linking the user identity to the user's biometric characteristics in the database;

means for continuously verifying that the identity of a user is authorized, algorithmically connected to said means for initially linking the user's identity to the

user's biometric characteristics, and totally embedded to said means for receiving and analyzing data from the sensor electronics for registration and continuous authentication;

means for matching a new set of biometric characteristics with the biometric characteristics in the identity database; and
means for changing the user's computer access.

2. The input device to continuously detect biometrics in accordance with claim 1, wherein said means for providing a base with sensors that indicate different pressures applied to the base by a user comprises a computer mouse.

3. The input device to continuously detect biometrics in accordance with claim 1, wherein said means for conditioning the analog signal so that it can be converted into a digital signal comprises an electrical sensor electronics module.

4. The input device to continuously detect biometrics in accordance with claim 1, wherein said means for receiving and analyzing data from the sensor electronics for registration and continuous authentication comprises an authentication computer.

5. The input device to continuously detect biometrics in accordance with claim 1, wherein said means for initially linking the user's identity to the user's biometric characteristics comprises a registration module.

6. The input device to continuously detect biometrics in accordance with claim 1, wherein said means for extracting a set of biometric characteristics from the digitized signal comprises a biometric characteristics extractor.
7. The input device to continuously detect biometrics in accordance with claim 1, wherein said means for linking the user identity to the user's biometric characteristics in the database comprises a software identity database.
8. The input device to continuously detect biometrics in accordance with claim 1, wherein said means for continuously verifying that the identity of a user is authorized comprises a continuous authentication module.
9. The input device to continuously detect biometrics in accordance with claim 1, wherein said means for matching a new set of biometric characteristics with the biometric characteristics in the identity database comprises a biometrics correlation unit.
10. The input device to continuously detect biometrics in accordance with claim 1, wherein said means for changing the user's computer access comprises an unauthorized user protocol.
11. An input device to continuously detect biometrics for facilitating continuous

authentication of the user's identification based on input from sensors attached to the device comprising:

a computer mouse, for providing a base with sensors that indicate different pressures applied to the base by a user;

an electrical sensor electronics module, for conditioning the analog signal so that it can be converted into a digital signal, electrically connected to said computer mouse;

an authentication computer, for receiving and analyzing data from the sensor electronics for registration and continuous authentication, electrically connected to said sensor electronics module;

a registration module, for initially linking the user's identity to the user's biometric characteristics, totally embedded to said authentication computer;

a biometric characteristics extractor, for extracting a set of biometric characteristics from the digitized signal;

a software identity database, for linking the user identity to the user's biometric characteristics in the database;

a continuous authentication module, for continuously verifying that the identity of a user is authorized, algorithmically connected to said registration module, and totally embedded to said authentication computer;

a biometrics correlation unit, for matching a new set of biometric characteristics with the biometric characteristics in the identity database; and

an unauthorized user protocol, for changing the user's computer access.

12. The input device to continuously detect biometrics as recited in claim 11, further comprising:

a task computer, for providing the computer user access to a task, electrically connected to said authentication computer.

13. An input device to continuously detect biometrics for facilitating continuous authentication of the user's identification based on input from sensors attached to the device comprising:

a computer mouse, for providing a base with sensors that indicate different pressures applied to the base by a user;
an electrical sensor electronics module, for conditioning the analog signal so that it can be converted into a digital signal, electrically connected to said computer mouse;

an authentication computer, for receiving and analyzing data from the sensor electronics for registration and continuous authentication, electrically connected to said sensor electronics module;

a task computer, for providing the computer user access to a task, electrically connected to said authentication computer;

a software, hardware registration module, for initially linking the user's identity to the user's biometric characteristics, totally embedded to said authentication computer;

a hardware, software biometric characteristics extractor, for extracting a set of biometric characteristics from the digitized signal;

a software identity database, for linking the user identity to the user's biometric characteristics in the database;

a software, hardware continuous authentication module, for continuously verifying that the identity of a user is authorized, algorithmically connected to said registration module, and totally embedded to said authentication computer;

a software, hardware biometrics correlation unit, for matching a new set of biometric characteristics with the biometric characteristics in the identity database; and

a software, hardware unauthorized user protocol, for changing the user's computer access.